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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/913,886	08/21/2001	Shinji Yamamoto	60188-355	5991

20277 7590 06/15/2006

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WASHINGTON, DC 20005-3096

EXAMINER
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LE, KAREN L

ART UNIT	PAPER NUMBER
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2614

DATE MAILED: 06/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Supplemental  
Notice of Allowability**

Application No.

09/913,886

Examiner

Karen L. Le

Applicant(s)

YAMAMOTO ET AL.

Art Unit

2642

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to printer rush 5/21/06.
2. ☒ The allowed claim(s) is/are 1-6 and 9-17.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
  1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☒ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_.

### EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.
2. Authorization for this examiner's amendment was given in a telephone interview with Sathaniel Mcqueen, Registration No. 53,308 on 3/27/06.

The specification on pages 8 and 9 has been amended as follows:  
shared, with an output side return loss being less than or equal to -6 dB over an entire extent of each frequency range.

The invention of ~~claim 12~~ is the semiconductor apparatus of ~~claim 4 or 5~~, wherein a grounded capacitor is connected in parallel to the constant current source.

The invention of ~~claim 13~~ is the semiconductor apparatus of ~~claim 12~~, wherein an impedance value of the grounded capacitor for a frequency of the signal having a lowest frequency range among the two or more input signals is set to be sufficiently small for an impedance value of the constant current source.

The invention of ~~claim 14~~ is the semiconductor apparatus of ~~claim 12 or 13~~, wherein an inductor is connected to a source of the field effect transistor.

The invention of ~~claim 15~~ is the semiconductor apparatus of ~~claim 14~~, wherein the inductor is arranged in series with the grounded capacitor.

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The invention of ~~claim 16~~ is the semiconductor apparatus of ~~claim 1, 2 or 3~~, wherein the constant current source is provided with a control terminal for turning on/off the constant current source.

A communication apparatus of the invention of ~~claim 17~~ includes a semiconductor apparatus of ~~claim~~ and an antenna, wherein the two or more signals having different frequency ranges that are received by the antenna are input to the respective semiconductor devices, or two or more signals having different frequency ranges that have been processed by the semiconductor devices are output from the antenna.

According to the invention of ~~claims 1 to 10 and 17~~, with the above-described configuration, a plurality of semiconductor devices are turned on/off based on the voltage applied to a control terminal provided in at least one of the semiconductor devices, thereby allowing for free selection of any one of the plurality of semiconductor devices. Therefore, only one power supply SW is required while the prior art required the same number of power supply SWs as the number of semiconductor devices, and the plurality of semiconductor devices and the constant current source can be packaged into a single device. Thus, the number of components is reduced, thereby realizing a reduction in the size of the portable terminal.

According to the invention of ~~claim 11~~ an output terminal is shared by a plurality of semiconductor devices, thereby reducing the number of terminals of a single packaged device.

Furthermore, according to the invention of ~~claims 12 and 13~~, in a case where each semiconductor device is provided by using a field effect transistor, the source terminal of the field effect transistor is grounded for high frequencies and opened for direct currents by a grounded capacitor, thereby improving the high frequency characteristics.

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karen L. Le whose telephone number is 571-272-7487. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wing F. Chan can be reached on 571-272-7493. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should You

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have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Karen Le  
KLL

June 6, 2006

A handwritten signature in black ink, appearing to read "Wing Chan", written in a cursive style.

**WING CHAN**  
**SENIOR PRIMARY EXAMINER**  
**TECHNOLOGY CENTER 2800**